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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,387	09/10/2002	Harri Vatanen	2132-47PCON	8959

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EXAMINER

HA, LEYNNA A

ART UNIT PAPER NUMBER

2135

DATE MAILED: 10/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,387

Applicant(s)

VATANEN, HARRI

Examiner

LEYNNA T. HA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-17 is pending.

2. In view of the Appeal Brief filed on 07/28/2006, PROSECUTION IS
HEREBY REOPENED. A Non-Final set forth below.

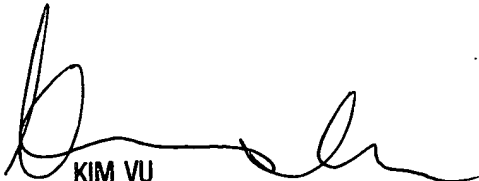
To avoid abandonment of the application, appellant must exercise one of the
following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply
under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed
by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and
appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth
in 37 CFR 41.20 have been increased since they were previously paid, then appellant
must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by
signing below:

Kim Vu.


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishioka, et al. (US 5,754,656), and further in view of Anderson, et al. (US 6,209,095).

As per claim 1:

Nishioka, et al. teaches a method for digitally signing an electronic form in a secure manner by means of a mobile station said method comprising the steps of:

computing a first hash code for the material [col.13, lines 21-23 and col.21, lines 58-61] to be signed, the material to be signed including the form, an identifier of the form, shared information, and /or essential information; [col.21, lines 6-10 and 62-65]

transferring the material [col.10, line 66 – col.11, line 1] to be signed and the first hash code, to the mobile station, [col.13, lines 24-26 and col.22, lines 3-5]

digitally signing, using the mobile station, the first hash code transferred to the mobile station; and [col.13, lines 35-40 and col.22, lines 7-8]

verify the authenticity of the signed and transferred material by comparing the signed hash code **[col.22, lines 53-58]** with the first hash code computed from the material before signature **[col.22, lines 42-45]**.

Nishioka discloses the part P2 of the document P where document is the claimed material is outputted to the smart card (col.10, line 66 – col.11, line 1). The smart card is the claimed mobile station. Further, Nishioka discloses a hash calculator for calculating the hash value of a part in the document and supplies the hash to the smart card (col.12, lines 38-39 and col.13, lines 20-25). Thus, Nishioka suggests the document and the hash value are transferred to the smart card where a signature is calculated (col.13, lines 35-37 and col.19, lines 29-50). However, Nishioka go into details signing the document that was transmitted to the smart card.

Anderson discloses a computer-based method for creating a signed electronic document (col.10, lines 36-38) where the invention features an apparatus including a portable electronic device (i.e. PCMCIA or smart card) to provide greater security for a financial transaction that is able to calculate and verify digital signatures (col.30, lines 41-58). Anderson also discusses a method of attaching a document to a related electronic document by forming a cryptographic hash of the document and appending the hash to the electronic document and signing the hash (col.13, lines 60-67 and col.21, lines 30-41). The signing of electronic documents can employ a public key cryptographic signature and hash algorithm to provide security attributes wherein the FSML signature mechanism allows documents to be combined, or added to, without lost of security attributes (col.19, lines 8-12). Anderson discloses the blocks making up the

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electronic document can be protected from tampering and all blocks need to be authenticated are assigned a digital signature (col.20, lines 7-9 and col.21, lines 17-22). Further, a hash can be generated from the document names and the digital hash 808 and signature 812 can be generated by digitally signing the hash 811 such that the digital signature of the hash can be incorporated into the block 800 whereby the contents of the block 800 can be signed. Thus, Anderson's technique verifies that all the blocks that are bound together are present and have not been tampered with such that the integrity of the entire document is verifiable (col.20, lines 22-32 and 43-47).

Therefore, it would have been obvious for a person of ordinary skills in the art at the time of the invention to combine the signing the hash code at the smart card as taught by Nishioka and signing the document (contents of the block) as taught by Anderson because digital signature insures that the electronic document is authentic and has not been tampered with (col.20, lines 22-32 and col.21, lines 10-11).

As per claim 2: See Nishioka on col.22, lines 3-5; discussing the first hash code is added to the material to be transferred to the mobile station.

As per claim 3: See Anderson on col.20, lines 29-32 and col.21, lines 10-11; discussing the material to be signed is generated from an identifier of the form and essential information associated with the form.

As per claim 4: See Nishioka on col.21, lines 58-61; discussing computing the first hash code from the material to be signed before the material is transferred into the mobile station.

As per claim 5: See Anderson on col.20, lines 29-32 and 44-46 and col.21, lines 10-11; discussing the material is transferred to the mobile station for signature from a second party and the signed material is transferred to the second party, whereupon the second party performs the step of verifying the authenticity of the signature.

As per claim 6: See Nishioka on col.21, lines 3-19; discussing the material is encrypted before being transferred between the mobile station and the second party and the encrypted material is decrypted before any treatment of the material, such as signature and verification of authenticity.

As per claim 7: See Nishioka on col.21, lines 6-14 and 62-65 and col.22, lines 40-42; discussing the form is generated using a pre-agreed form template provided with an identifier, the essential information being filled in the form template before it is transferred to the mobile station.

As per claim 8: See Nishioka on col.21, lines 59-61; discussing the hash code is generated using a hash function.

As per claim 9: See Nishioka on col.22, lines 8-10 and 57; discussing the signature and/or encryption of the message are implemented using a public and private key method.

As per claim 10: See Anderson on col.20, lines 29-32 and col.21, lines 10-11; discussing the material and/or part of it is presented in the mobile station before the material is signed.

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As per claim 11: See Nishioka on col.12, lines 27-28; discussing wherein the mobile station is started in signature mode before the transfer of the material into the mobile station.

As per claim 12: See Nishioka on col.22, lines 1-2 and Anderson on col.31, lines 28-32; discussing the material is stamped with a the stamp, and the transaction of signature of the material is tiled after the signature has been authenticated.

As per claim 13:

Nishioka, et al. teaches a system for digitally signing an electronic form in a secure manner by a mobile station said system comprising:

a payment machine; [col.21, lines 1-2; discusses the user site apparatus is in the form of a payment machine is a terminal for the user to insert the smart card into (col.9, lines 16-28) that communicates to the retail store apparatus where this payment apparatus issues commands for purchasing the desired products and thus is inherent the user site apparatus is where payment takes place in order to complete the purchase via the retail store apparatus (col.9, lines 3-5 and 10-13).]

means connected to the payment machine for the generation of the material [col.10, line 66 – col.11, line 1] said material comprising a form, its identifier, shared data, and/or essential information added to it; and [col.21, lines 6-14 and 62-65 and col.22, lines 40-42]

means connected to the payment machine for the transfer of the material into the mobile station, wherein [col.9, lines 34-50 and col.13, lines 24-26 and col.22, lines 3-5; discusses the smart card in the form of the mobile station where the smart

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card is mobile that can receive/transmit data, encrypt/decrypt unit, and a digitally signature unit. (col.9, lines 55-56 and col.22, lines 6-7).]

the payment machine comprises means for computing a first hash code from the material to be signed **[col.13, lines 35-40 and col.22, lines 7-8]** and means for transfer of the first hash code into the mobile station; **[col.13, lines 24-26 and col.22, lines 3-5]**

the payment machine comprises means for verifying the authenticity of the signed and transferred material by comparing the signed hash code **[col.22, lines 53-58]** with the hash code computed from the material before signature. **[col.22, lines 42-45]**

Nishioka discloses the part P2 of the document P where document is the claimed material is outputted to the smart card (col.10, line 66 – col.11, line 1). The smart card is the claimed mobile station. Further, Nishioka discloses a hash calculator for calculating the hash value of a part in the document and supplies the hash to the smart card (col.12, lines 38-39 and col.13, lines 20-25). Thus, Nishioka suggests the document and the hash value are transferred to the smart card where a signature is calculated (col.13, lines 35-37 and col.19, lines 29-50). However, Nishioka go into details signing the document that was transmitted to the smart card.

Anderson discloses a computer-based method for creating a signed electronic document (col.10, lines 36-38) where the invention features an apparatus including a portable electronic device (i.e. PCMCIA or smart card) to provide greater security for a financial transaction that is able to calculate and verify digital signatures (col.30, lines 41-58). Anderson also discusses a method of attaching a document to a related

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electronic document by forming a cryptographic hash of the document and appending the hash to the electronic document and signing the hash (col.13, lines 60-67 and col.21, lines 30-41). The signing of electronic documents can employ a public key cryptographic signature and hash algorithm to provide security attributes wherein the FSML signature mechanism allows documents to be combined, or added to, without lost of security attributes (col.19, lines 8-12). Anderson discloses the blocks making up the electronic document can be protected from tampering and all blocks need to be authenticated are assigned a digital signature (col.20, lines 7-9 and col.21, lines 17-22). Further, a hash can be generated from the document names and the digital hash 808 and signature 812 can be generated by digitally signing the hash 811 such that the digital signature of the hash can be incorporated into the block 800 whereby the contents of the block 800 can be signed. Thus, Anderson's technique verifies that all the blocks that are bound together are present and have not been tampered with such that the integrity of the entire document is verifiable (col.20, lines 22-32 and 43-47).

Therefore, it would have been obvious for a person of ordinary skills in the art at the time of the invention to combine the signing the hash code at the smart card as taught by Nishioka and signing the document (contents of the block) as taught by Anderson because digital signature insures that the electronic document is authentic and has not been tampered with (col.20, lines 22-32 and col.21, lines 10-11).

As per claim 14: See col.20, lines 54-57 and col.21, lines 4-5 and 18-19;
discussing a server connected to the payment machine and the mobile station and

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controlled by a third party, and the mobile station comprises means for encrypting the signed material.

As per claim 15: See col.22, lines 49-55; discussing the server comprises means for the verification of authenticity of the digital signature.

As per claim 16: See col.21, lines 6-10 and 62-65 and col.22, lines 40-42; discussing the mobile station comprises means for presenting the material and/or part of it in the mobile station before the signing of the material.

As per claim 17: See col.22, lines 1-2; discussing means for stamping the material with a time stamp, and means for filing the transaction of signing of the material after the signature has been authenticated.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEYNNA T. HA whose telephone number is (571) 272-3851. The examiner can normally be reached on Monday - Thursday (7:00 - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LHa

A handwritten signature in black ink, appearing to read 'CR', is positioned above the printed name of the Primary Examiner.

**CHRISTOPHER REVAK
PRIMARY EXAMINER**